

**ADVISORY COMMITTEE – CAPITAL SUBCOMMITTEE
DEPARTMENT OF PUBLIC WORKS/WATER
& SEWER ENTERPRISE FUND
FY 24 CAPITAL IMPROVEMENT PROGRAM REQUESTS**

PUBLIC HEARING (VIRTUAL) MARCH 8, 2023

Attendees: Subcommittee members Carlos Ridruejo (chair), Harry Friedman, John Doggett, Alok Somani;
Commissioner of Public Works Erin Gallentine, Deputy Commissioner and Director of Highway and Sanitation Kevin Johnson, Director of Parks & Open Space Alexandra Vecchio, Director of Engineering & Transportation Robert King, Director of Water & Sewer Jay Hersey, Assistant Town Administrator for Finance Charlie Young;
Hugh Mattison, Arlene Mattison, John Bowman, Fran Perler, Abby Swaine, Shonali Guadino, Emily Jacobsen, Nancy O'Connor.

The recording of the hearing can be viewed here:

https://brooklinema.zoomgov.com/rec/share/Fuf_d-RwD0M8YZ7R7Vwr5Lm5j7ScvV6HP6DpAmp8-y2h_mUeVkDujQ3AAMNUDB_8.WQf0L8KmDptQyHvz

Passcode: embedded in link above.

Capital Improvement Plan Budgets \$17,055,645

WATER & SEWER ENTERPRISE FUND

STORMWATER IMPROVEMENTS

\$600,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

As climate change continues to influence the frequency and intensity of storm events in the region, the Town is looking to better understand flood and storm risks to the community, infrastructure, and resource

areas. The Town continues to develop plans that adapt to the severe extremes in the weather. This includes monitoring and assessing locations that are flood prone to develop ways to mitigate and/or reduce the potential for storm damage by managing stormwater flows upstream of these sensitive areas. Project funding will be put towards consulting services to assist with the EPA's NPDES Phase II MS4 Permit compliance and provide planning/design/installation of Best Management Practices (BMPs) to help reduce the amount of flow and pollutants discharged to resource areas. Projects will be prioritized in environmental justice areas within Town or climate-vulnerable neighborhoods and support goals of both the Town's Climate Action Plan and Urban Forest Climate Resiliency Master Plan. Construction costs to install the BMPs would also be covered with these funds. Funding for this important work follows both local initiatives for climate resiliency and compliance with Federal and State mandates.

WATER SYSTEM IMPROVEMENTS

\$2,00,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

Water System Improvements funding supports the ongoing capital improvements, analysis, repair/replacement, and servicing of the Town's water distribution system to provide high-quality, well-maintained, and properly managed potable water that meets state and federal regulations, protects the health and safety of the community, and is metered to provide accurate and efficient usage readings and calculations. In addition to distribution system upgrades to improve quality and reliability, Water System Improvement funding priorities are meter/MTU replacement and lead service line (LSL) replacements in accordance with state regulations. The last town-wide meter swap was completed in 2006. Typical meters have a 15 to 20-year service life. As meters age, they tend to under register. Under registration leads to revenue loss, delays in proper payment, and inefficiencies in business administration. The Town will purchase and install replacement meters

over a 3-year period. Concurrent with the meter swap program, the Water & Sewer Division will focus on replacing all known and unknown Lead Service Lines (LSL). An LSL inventory will be developed in FY23 and used as a guidance tool to prioritize and plan the LSL replacements. Funds requested for FY24 will be used towards design and construction costs to physically replace the LSLs. The Town's goal would be in line with the MADEP goal of protecting public health by removing all identified lead services in 5 years or less. There are State Revolving Fund (SRF) loans available to help assist with the funding of LSL replacements.

WASTE WATER SYSTEM IMPROVEMENTS

\$3,000,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

The Wastewater System Improvements project provides funding for the rehabilitation of the wastewater collection system (sanitary sewer). The asset rehabilitation program is based on the recommendations of the Sewer System Capital Improvement Program completed in 2016. The goal is to rehabilitate the entire sewer system over 18 years to protect the asset and reduce infiltration and inflow (I&I) by 2032. I&I reduction not only helps reduce the chance of backups in the system, but also lowers the MWRA wholesale costs by reducing extraneous clear water flows. Funding for this annual work is supported by generous grant/loan programs offered by the MWRA, reducing the Town's financial impact significantly.

DEPARTMENT OF PUBLIC WORKS

TRANSPORTATION

TRAFFIC CALMING / SAFETY IMPROVEMENTS

\$500,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

The Town of Brookline has a strong history of implementing safety improvements on our residential streets to enhance the safety and improve the quality of life of our residents. Through our Roadway Safety & Traffic Calming Programs, the Transportation Board and Department of Public Works is committed to implementing projects that:

- Encourage citizen involvement in all phases of neighborhood traffic management
- Influence driver behavior through education and design
- Ensure that limited Town resources are utilized in a cost-effective and efficient manner
- Implement traffic calming techniques that are both effective and compatible with the character of the affected neighborhoods and improve public safety without jeopardizing emergency response needs, creating hazards, or reducing mobility
- Improve the livability and safety of Brookline neighborhoods by mitigating the impact of traffic and promoting safer conditions for residents, motorists, bicyclists, and pedestrians, and
- Install traffic calming measures on streets where their implementation will reduce traffic speeds and/or improve the safety of movements by pedestrians and bicyclists
- As of September 14, 2021, the Town currently has a list of twenty Traffic Calming projects that have been submitted to the Engineering and Transportation Division for review and prioritization. This updated list remains available on the Transportation Division's website.

The following project has been assessed, designed and are prepared for implementation subject to approved funding:

Upper Washington Street Pedestrian Safety Project:

The Transportation Board and the Transportation Division of Public Works committed to improving pedestrian safety along the portion of Washington Street from the townline with Boston and Salisbury Road as a result of a fatal pedestrian crash at the intersection of Washington Street and Downing Road in November of 2021. This area of Washington Street is outside the project limits for the transportation mitigation improvements as part of the Driscoll School construction project and the planned TIP project from Beacon Street to Station Street. The section of roadway was the site of safety improvements over 15 years ago that included the construction of curb extensions on Washington Street at intersections with residential streets that flow into the arterial roadway. The initial staff plan is to expand on these measures and to further increase pedestrian safety along the corridor, by increasing pedestrian sightlines, pedestrian accessibility, and reduce vehicle speeds of those turning onto and off of Washington Street through the installation of raised crosswalks along the side street crossings on Salisbury Road, Bartlett Street, Evans Road, and Downing Road and a pedestrian actuated rectangular rapid flashing beacon (RRFB) at the unsignalized crosswalk across Washington Street at Bartlett Street. These are safety improvement techniques used both regionally and nationally to create safer pedestrian accommodations along main arterial roadways like Washington Street. With the support of the Transportation Board and the Zoning Board of Appeals, staff was able to secure a commitment by the developer for 45 Bartlett Crescent to design and construct the raised crosswalk for Bartlett Crescent.

BICYCLE ACCESS IMPROVEMENTS

\$700,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

Given that transportation currently accounts for 43% of all greenhouse gas emissions in Massachusetts, the largest of any one sector, the only way for the Town to meet both the Select Board's commitment to become carbon neutral by 2050 and Town Meeting's December 2019 Healthy & Sustainable Transportation resolution to achieve a mode split of 75% of trips by walking, biking, electric micro-mobility, and public transit (among others), is to invest in and prioritize projects that improve the safety and access of these 'alternative' modes over single occupancy vehicle trips with the eventual outcome of making these modes the norm.

Bicycling and micro-mobility modes are sustainable, economical, and convenient modes of transportation for short and medium distance trips and are popular forms of recreation for young and old. They are good for the environment, for public health, and for reducing traffic congestion and parking demand. They also offer older children a measure of independence and are a practical mode of travel to Brookline High School, sports fields, and other local destinations.

Projects funded through this line item originate from a larger planed Green Routes Bicycle Network of safe, pleasant, and connecting routes. The network connects neighborhoods with important local destinations including schools, libraries, parks, and commercial districts; it also connects to Green Line T stops and to important bicycling routes at the Town limits, including Beacon Street in Boston and Newton, Commonwealth Avenue, Perkins Street, West Roxbury Parkway, and the Charles River bike paths. The Network seeks to avoid circuitous routes that discourage cycling. As much as possible, its routes minimize traffic stress, avoid hills, are esthetically pleasant, and minimize stops. It incorporates routes that cyclists prefer, because there is no benefit to designating routes that bicyclists won't follow. Funding supports the painting of existing and new bike lanes and sharrows, replacement and installation of protective bollards and designated signage, and the installation of curb extensions and protected bike lanes.

TRANSPORTATION NETWORK COMPANY FUNDS

\$100,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

The Town receives funds from the State assessment on transportation network companies (TNCs), such as Uber and Lyft. One half of the \$0.20 per ride assessment was distributed to the Town and can be appropriated "to address the impact of transportation network services on municipal roads, bridges and other transportation infrastructure or any other public purpose substantially related to the operation of transportation network services in the city or town including, but not limited to, the complete streets program established in [G.L. c. 90I, § 1] and other programs that support alternative modes of transportation." St. 2016, c. 187, § 8(c)(i). Due to the impact of the COVID 19 Pandemic on the Ride Share industry, in FY23, the Town received only \$84,060.60. Previously, the Town received \$81,753.60 in funds in FY22, \$245,871 in FY21, \$234,757 in FY20, and \$207,442.50 in FY19.

As requested during the November 2018 Special Meeting process, Transportation Division staff prepares projects and receives Transportation Board approval in advance of the anticipated July announcement of the amount of funds that the Town will receive. The Transportation Board has stated that they will prioritize funding toward supporting the transportation program funding needs of the Council on Aging and upgrading Brookline's signalized intersections with APS systems. However, the public process will allow for other uses to be explored and considered provided they meet the requirement for appropriation established by MGL.

Because of the timing of the announcement and availability of funds for the municipality by the state, the budget item will require appropriation annually as part of the November Special Town Meeting.

ACCESSIBLE PEDESTRIAN SIGNAL CONVERSION

\$75,400 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

Accessible Pedestrian Signals (APS), including pedestrian pushbuttons and count-down timers, are integrated devices that communicate information in non-visual formats to vision-impaired pedestrians about the WALK and DON'T WALK intervals at signalized intersections. They play an important role in improving the walkability of our community by aiding vision-impaired pedestrians to safely navigate signalized intersections by locating the crossing location, activating the pedestrian push buttons, and knowing when it is safe to cross the street.

There are currently 34 (out of 62) traffic signals that do not meet the required standard for Public Right of Way Accessibility Guidelines (PROWAG) with respect to the installation of APS equipment. These traffic signals, all installed before 2006, lack APS push buttons and count down timers. The estimated cost of bringing all 34 into compliance is approximately \$540,000. Funding sources for the upgrades include private development mitigation funds, the Federal Transportation Improvement Program (TIP) town CIP dollars, Transportation Network Company (TNC) funds, allocated by the State to the Town, and Community Development Block Grant (CDBG) funds. Because of the number of signals that need to be converted, the work will likely be outsourced, making it slightly more expensive than it would be if performed by the Town forces.

Due to lack of replacement parts, the APS system on Beacon Street will have to be replaced with an updated version. This APS system was installed as part of the rebuilding of Beacon Street in 2007.

ENGINEERING/HIGHWAY PROJECTS

STREET REHABILITATION – TOWN

\$3,930,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

In 1992, the Department of Public Works (DPW) undertook a comprehensive study of its roads and implemented a pavement management system. The Engineering and Transportation Division of DPW continues to advocate for the importance of protecting and improving upon our roadway and sidewalk network. As highlighted in detail below, our Transportation and Mobility Plan documents the importance of increasing our current available funding to a total of approximately \$6.5-million dollars per year to protect our existing assets and improve upon them. All improvements are done based on the comprehensive Complete Streets Policy adopted by the Select Board in 2016.

This total recommendation takes into consideration the estimated \$950,000 that we leverage as part of the Chapter 90 allocation from MassDOT. The requested amount for this line item is \$5.5-million dollars.

In 2021, the Department of Public Works developed a Transportation and Mobility Plan for the Town of Brookline. Previously the program was focused solely on pavement condition with no planned improvements to how the street meets the needs of all travel modes. In recognition of the fact that transportation currently accounts for 43% of all greenhouse gas emissions in Massachusetts, the Department's goal in creating the Transportation and Mobility Plan is to document conditions based upon a uniform set of parameters, identify costs, and set benchmarks regarding infrastructure conditions in an effort to coordinate improvements and leverage funding in an efficient, effective and transparent manner benefitting all modes of transportation (walking, biking, micro-mobility, public transit, and driving) through the lens of our the Town's Complete Streets Policy, Climate Action Plan, and Healthy & Sustainable transportation Warrant Article.

Background:

The Town's roadway infrastructure is one of our most valuable and important physical assets. Our roadways and sidewalks connect residents, businesses and visitors, which is vital to the overall success of the community. The Town currently maintains nearly 100 miles of roadway (over 240 lane miles), 149 miles of sidewalk and over 2,100 curb ramps. As part of the Transportation and Mobility Plan, each of these infrastructure assets was assessed in an effort to better understand their current condition and summarize necessary maintenance and structural repairs. As part of these assessments, maintenance activities were spatially located to help the Town understand areas of required focus.

The approach to repairs and maintenance is balanced between repairing infrastructure in poor condition and maintaining infrastructure in good condition. This approach allows the Town to maximize its investments and prolong the lifecycle of the public right-of-way asset network.

To aid in our assessment, the Town retained an outside engineering consultant to complete a full assessment of its roadway and sidewalk infrastructure. The roadway assessments were completed using the latest in machine-learning technology, and the resulting project deliverable provided the Town with high definition photographs along the roadway network.

The surveys set benchmarks for condition, performance measures and tracking that support the long-term capital planning process. This allows the Town to gauge how well the plan is working and consider modifications in approach and/or funding levels.

The results of the survey show that nearly 37 miles of roadway are in need of rehabilitation, while 55 miles fall into the maintenance categories. The planning level backlog cost to perform all maintenance and rehabilitation is approximately \$54 million based upon FY21 cost estimates. As noted below, funding requests will also need to consider the complete street planning process, supporting public and multi-modal amenities, engineering and design, and construction oversight

The sidewalk and curb ramp infrastructure was found to be in relatively good condition with more than 50% of each falling into an "Excellent/Good" condition category.

Prioritization of Repairs and Project Process:

When prioritizing repairs, the Department of Public Works goal is to maximize available funding in an efficient, effective and transparent manner. To assist with this task, the Town will use a variety of data driven analysis tools (such as a cost-benefit report and spatial destination analysis) to help in the prioritization process.

Once projects are identified, the Department will coordinate with underground utility projects while taking into account design considerations (complete streets, traffic calming requests, ADA Compliance, traffic signal upgrades, etc...), project constructability, and treatment options. This process was put in place to consider factors that were not captured as part of the planning study, but need to be considered in an effort to successfully complete the projects. The intent of this program is to develop a funding scenario that maintains or improves the overall condition of the Town's infrastructure. In addition to the cost of constructing infrastructure, funding requests include costs associated with successful execution of these projects such as survey, design, public outreach, construction oversight/administration and corresponding asset improvements (signs, traffic signals, etc). The provided budget scenarios are intended to provide clarity and transparency throughout the process so that constituents understand how each budget scenario will affect the future of the Town's infrastructure assets.

The Department held public meetings in May and June 2021 to review the Transportation and Mobility Plan, pavement management strategy, prioritization, cost scenarios and to request input from the public on prioritization. The consultant team reviewed the conditions assessment and current spending and developed the following scenarios to depict the projected condition index of the roadway given various spending levels. Scenario 1, the current annual spending, projects declining roadway condition.

The Department's ultimate goal is to continuously improve the overall condition of our roadway and sidewalk network. Based on the modeling and analysis completed to date, data suggests the Town spend approximately \$6.5 million dollars per year to see the overall trend move in a positive direction. The request associated with this item is a total of \$5.5-million dollars, which combined with our Chapter 90 funding (that comes from the State) would represent a total of approximately \$6.5-million dollars.

Based on the recommendations of the 2007/2008 Override Study Committee (OSC), the 2008 Override approved by the voters included \$750,000 for streets and sidewalks, to be increased annually by 2.5%. While the FY24 appropriation is higher than what the formula provides due to a strong Free Cash number, the out-years reflects the current constraints under a lower Free Cash estimate. This account would be bolstered if the Town Administrator's recommended Override Plan is approved by the Select Board and electorate.

STREET REHABILITATION – STATE

\$920,245 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

The State provides monies under its Chapter 90 program for improvements to certain streets. About 1/3 of Brookline's streets are eligible for 100% State reimbursement. This money supplements the funding appropriated from Town funds for street rehabilitation. An annual \$300 million statewide Chapter 90 program is assumed.

SIDEWALK REPAIR

\$500,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 3-0-1

In order to meet both the Select Board's commitment to become carbon neutral by 2050 and Town Meeting's December 2019 Healthy & Sustainable Transportation resolution to achieve a mode split of 75% of trips by walking, biking, electric micro-mobility, and public transit (among others), the Department of Public Works has developed a sidewalk management program in an effort to promote walking as a safe and viable transportation mode for commuting and recreational purposes.

In accordance with the ADA, the DPW recently undertook a self-evaluation of the Town's pedestrian facilities within the public right-of-way. A Transition Plan was developed from the data collected to prioritize repairs and bring the facilities into compliance with federal ADA and Massachusetts AAB regulations. In addition, the Town has embarked upon an Urban Forest Climate Resiliency Master Plan which identified the need to construct better tree planting conditions, such as structural soils, and porous materials, to help promote the health and growth of public shade

trees and also minimize heaving sidewalks and other challenges that inhibit accessibility and create tripping hazards.

Similar to the department's pavement management program, as part of our larger Transportation and Mobility Plan, the DPW Sidewalk Improvement program is a data-driven approach to repair deteriorated sidewalks and ramps, reach ADA/AAB compliance Town-wide, provide essential pedestrian connectivity, and create more walkable neighborhoods. While some sidewalks are reconstructed as part of the street reconstruction program, those that are not, are funded under this program.

PARKS AND PLAYGROUNDS

AMORY TENNIS COURTS, PARKING AND HALLS POND RENOVATION

\$520,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

This item includes the reconstruction of the drainage, subgrade, irrigation and clay tennis courts and associated infrastructure at Amory Park. It also allows for improvement to drainage and reconstruction of the parking lot and entrance to the park, picnic areas and includes rehabilitation of the existing boardwalk structure and pathways at the Halls Pond Conservation Sanctuary. The current board walk structure was installed in 2002 as a component of the overall restoration of the entire Conservation Sanctuary. Heavy use of the area is causing the decking and railings of the boardwalk to degrade, and the frequency of repairs is increasing. This project will remove the existing decking and railings, leave the piers and substructure in place, and install new pressure treated decking and handrails to ensure visitors will have a safe, and accessible, boardwalk system. This project will impact approximately 600 linear feet of boardwalk with a low bump rail, 140 linear feet with full handrails on both sides, and two overlook platforms.

MONMOUTH PARK

\$350,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

Monmouth Park is located on St. Mary's Street close to Beacon. It was last renovated in 2006. The park is framed by an ornamental fence, has mature trees, stone seat walls, a walking path, bluestone plaza, lawn area, and playground. The park is located next to the Brookline Arts Center which was located here after an

old chemical firehouse was remodeled in 1968. In Fall 2002, Town Meeting voted for both lots to be protected under Article 97. The playground is in need of full replacement. As part of the renovation, the lawn will be refurbished, plantings replaced, masonry repaired and plaza space repaired.

SCHICK PLAYGROUND

\$2,000,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

Schick Park, located on Addington Road, is in need of a full site renovation to meet new safety and accessibility requirements. Renovations will include new play equipment for older and younger children, repointing the stone walls, repair of the wooden picnic shelter, field renovation, fencing, paving and site furniture.

PARKS AND PLAYGROUNDS REHABILITATION & UPGRADE

\$285,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

This annual, town-wide program directs CIP funds to the evaluation, repair and replacement of unsafe and deteriorating park, playground, fence, and field facilities or components. Items funded under this program include fences, gates, backstops, retaining walls, picnic furniture, turf restoration, infield refurbishment, bench replacements, play structures, safety surfacing, and drainage improvements. This program avoids more expensive rehabilitation that would be necessary if these items were left to deteriorate.

TOWN/SCHOOL GROUNDS REHAB

\$100,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

Town and School grounds require on-going structural improvements and repair. These funds will be applied to create attractive and functional landscapes and hardscape improvements including plant installation, regrading, reseeding, tree work, repair to concrete or asphalt walkways through the site, trash receptacles, bike racks, drainage improvements, retaining walls, and repairs to stairs, treads, railings, benches, or other exterior structures. This funding does not include capital replacement of areas over building structures or directly connected to the buildings, such as entrance stairways and ramps into the building that are under

the Building Department's jurisdiction. This program avoids more expensive rehabilitation that would be necessary if these items were left to deteriorate.

TENNIS COURTS/BASKETBALL COURTS

\$300,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

The Town has over 19 basketball courts and 36 hard-surface tennis courts. Over time, the court surfaces begin to deteriorate, crack, and weather. In order to maintain the integrity, safety, and playability of the courts, the Town needs to plan for the phased reconstruction/renovation/resurfacing of the courts, lighting and drainage improvements.

CONSERVATION/OPEN SPACE

TREE REMOVAL AND REPLACEMENT / URBAN FORESTRY MANAGEMENT

\$375,000 (Property Tax/Free Cash)

Subcommittee Recommendation Vote: 4-0-0

The tree removal and replacement program represents the Town's effort to balance street tree removals with plantings. As trees mature or are impacted by storm damage or disease, it is critical to remove these before they become public safety hazards. New tree plantings are also critical, as they directly impact the tree-lined character of the community, improve stormwater quality, provide oxygen, reduce heat impact in the summer, and improve the overall quality of life in Brookline. In addition, funding is included for on-going management work in the four conservation properties (Hall's Pond Sanctuary, Amory Woods Sanctuary, D. Blakely Hoar Sanctuary, and the Lost Pond Sanctuary) and parks. Storm damage, disease, and old age continue to reduce tree canopies. The funds will be utilized to remove hazard trees and provide structural, health, and safety pruning to prolong the life and viability of our significant trees. New trees will be planted in anticipation of the ultimate loss of existing mature trees.

Included in the requested annual amount is funding for Urban Forest Management to address a range of significant improvements needed, such as: tree removals, crown thinning, soil amendments, woodland canopy gap management, invasive removal, pest management, health and structural pruning, and planting throughout the Town's parks and open spaces. This program will help with resiliency to disease,

pests and rapid decline attributed with trees unmanaged in an urban environment. The first phase of work will be performed in collaboration with the Olmsted Tree Society of the Emerald Necklace Conservancy who has worked with the Town of Brookline, City of Boston and Commonwealth of Massachusetts on an Urban Forestry Management Plan for the Emerald Necklace. The work outlined in this plan will be supported with public, private and grant funding. The protocol outlined in the plan shall be used to plan for and address urban forestry management priorities throughout Town.